

Remarks

The Applicants have amended the Specification to place it into final form for allowance. Entry into the official file is respectfully requested.

Claim 1 has been amended to replace the resin elastomer with silicone resin. Support may be found in the Applicants' Specification such as on Page 28 at Line 8, for example. Claim 1 has also been amended to recite that the amount of the silicone resin adhered to the fabric is from 5 to 20 g/m². This range is inherently supported by the previous range of 5 to 30 g/m². In any event, specific support may be found on Page 20 of the Applicants' Specification at Line 9, for example.

Entry of the above amendments to Claim 1 into the official file is respectfully requested.

Claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. §103 over the combination of Veiga with JP '740. The Applicants note with appreciation the Examiner's detailed comments with respect to the combination of both references. The Applicants nonetheless respectfully submit that one skilled in the art would not make the combination. Reasons are set forth below.

The Applicants respectfully submit that JP '740 discloses a base fabric for non-coated air bags. This theme is found throughout the JP '740 disclosure and is important in the context of the combination with Veiga.

On the other hand, Veiga discloses coated fabric to form air bags. That coating can include polyurethanes, for example. Critically, however, Veiga, in Col. 2 beginning at Line 39 and extending to Line 55 and beginning in Col. 4 at Line 62 and extending to Line 67, forcefully and plainly teaches that coatings of silicone rubber are not suitable. In one case, the result is a product that becomes heavy and bulky which is not suitable for use as a side air curtain because it cannot easily be folded. The Applicants reproduce the above-mentioned text from Veiga for the Examiner's convenience:

Col. 2, Lines 39-55

Wherever coated fabrics are used, considerations such as controlling air permeability, air pressure, and volume exist. Adhesion of the coating material to the textile fabric substrate also presents a serious problem that must be addressed. For example, it is generally more difficult to obtain strong adhesion of a coating material to textile fabrics having a smoother surface than it is with fabrics having a rougher surface. Radio frequency (RF) heat sealing techniques cannot be used with some coatings such as silicone rubber (polysiloxane) to form the air bag because this material will not flow at RF heat sealing temperatures. In such cases, air bags are usually made by stitching, a process that will frequently require the addition of an adhesive sealant in the stitched areas to prevent leakage of air. Even with such adhesive sealants, however, some leakage of air occurs at the stitching, which lessens the protective capability of the air bag.

Col. 4, Lines 62-67

Moreover, in order to make the side air curtain impermeable to air, the coatings require large concentrations of polysiloxane or other rubber-like materials. These produce a very heavy and bulky curtain that is not easily folded and stored when not in use.

The above Veiga teachings make it very clear to those skilled in the art that silicone rubbers should be avoided for use in coated fabrics for airbags/air curtains. Instead, Veiga discloses a multi-layered woven side air curtain having an adhesive prime coat polyurethane layer coated on at least one surface thereof and a solid polymeric film laminated thereto.

Therefore, the Applicants' respectfully submit that if one skilled in the art were to hypothetically apply a coating to the non-coated fabric of JP '740, in spite of the lack of a reason to do so because of the deliberate non-coating aspect of JP '740, the result would be that one skilled in the art would apply a polyurethane layer prime coat to the JP '740 base fabric. The problem with that application is that it is completely different from what the Applicants claim in Claims 1, 2, 4 and 5. Instead, the Applicants apply a silicone resin. This is essentially the opposite of the teachings of Veiga and, accordingly, the Applicants respectfully submit that the fact that the Applicants employed

silicone rubber directly in the face in the teachings of Veiga, is excellent evidence of patentability. In that regard, it should be kept in mind that when the prior art teaches away from the claimed subject matter, this is compelling evidence of non-obviousness. Withdrawal of the rejection based on the combination of Veiga with JP '740 is respectfully requested.

Claims 1, 2, 4, 5 and 11 stand rejected under 35 U.S.C. §103 over the combination of Li with JP '740. The Applicants again note the Examiner's detailed comments applying both of Li and JP '740 against those claims. The Applicants respectfully submit that the combination still fails to result in the Applicants' claimed subject matter with respect to Claims 1, 2, 4, 5 and 11. Reasons are set forth below.

The Applicants have already established that JP '740 relates to a non-coated air bag. There is no disclosure in JP '740 to add a coating.

Nonetheless, if one skilled in the art were to look to Li to provide a coating, despite no reason to do so, the result would be a coating of a polyamide material in a coating amount of less than about 0.6 ounces per square yard. One problem with such a combination is that it would still not result in the Applicants' subject matter which is directed to a fabric coated with a silicone resin. Polyamides are not silicone rubbers. Therefore, even if one skilled in the art made the combination, the structure resulting from the combination would still be quite different from what the Applicants' claim.

There are further problems. Li provides a base fabric coated with a polyamide material that has an impermeability when subjected to a pressure of 0.5 inches of water. This corresponds to a pressure of 124 Pa. Li also discloses that the dry coating weights for silicone have been in the range of about 0.7 ounces per square yard or greater. This is seen in Col. 1 beginning at Line 41 and extending through about Line 51. This high addition of coating weight substantially increases the cost of the base fabric for the air bags, which is undesirable.

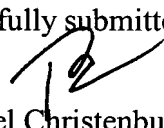
In sharp contrast, the coated base fabric for air bags in Claims 1, 2, 4, 5 and 11 has an impermeability under high pressure of 19.6 KPa despite dry coating weights for the silicone resin of 20 g/m² or less. It can therefore be seen that the impermeability of the Applicants fabric is many multiples greater than the impermeability of Li. This difference between 124 Pa and 19.6 KPa is completely unexpected based on the teachings of Li (and, of course, based on the teachings of JP '740 that do not even include a coating).

What is particularly revealing in this regard is that a dry coating weight 20 g/m² is the equivalent of 0.59 ounces per square yard or less. In other words, the Applicants achieve the impermeability of 19.6 KPa versus the Li impermeability of 120 Pa with an amount of coating that is essentially the same as Li. This adds to the further unexpectedness of the Applicants' claimed fabrics.

The Applicants respectfully submit that one skilled in the art would not make the hypothetical combination as set forth in the rejection. In any event, the result of the combination would be a polyamide coated airbag fabric instead of a silicone resin coated airbag fabric. Further, the differences in impermeability achieved by the Applicants are completely unexpected over the collective disclosures of JP '740 and Li. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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